his brochure summarizes
last year's water quality.

Included are details about where
your water comes from, what it
contains, and how it compares
to drinking water standards
set by the U.S. Environmental
Protection Agency (USEPA)
and California Department of
Public Health (CDPH).



2011 WATER QUALITY REPORT

ENVIRONMENTAL SERVICES DEPARTMENT • SAN JOSE MUNICIPAL WATER SYSTEM Working with our community to conserve natural resources and safeguard the environment for future generations



San Jose Municipal Water System Environmental Services Department 3025 Tuers Road San José, CA 95121

2011 Water Quality Report

This report contains important information about your drinking water. We hope it will provide the facts and perspective you need to make an informed evaluation of your tap water.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

此份有關你的食水報告,內有重要資料和訊息,請找 他人為你翻譯及解釋清楚。

이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시요.



A Message from the U.S. Environmental Protection Agency

Across America, the sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production mining, or farming.
- Pesticides and herbicides, which may come from a variety
 of sources such as agriculture, urban stormwater runoff, and
 residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, which can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturallyoccurring or result from oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.



Almaden Reservoir, 2004. Photo courtesy of Cait Hutnik.

Safeguarding Your Water Supply

PROTECTING our water supply is important to ensure that water is safe from contamination and aesthetically pleasing for use. Protection begins in the watersheds, where people and their activities can be a major cause of source contamination. Contamination requires additional treatment, which increases the cost to deliver water to your tap.

PARTICIPATING in public meetings and forums regarding water issues enables decision-makers to hear your perspective and allows you to be directly involved in protecting your water supply.

UNDERSTANDING that drinking water — including bottled water — may reasonably be expected to contain at least minute amounts of contaminants will help you make an informed choice about your drinking water. The presence of contaminants does not necessarily indicate a health risk.

The Source of Your Water

The San Jose Municipal Water System (Muni Water) serves the North San José, Alviso, Evergreen, Edenvale, and Coyote Valley communities of the City of San José. The source of your water depends on the service area in which you are located.

North San José/Alviso Service Area

Muni Water purchases a blend of Hetch Hetchy water and treated water from the San Francisco Public Utilities Commission (SFPUC) and delivers it to our Alviso and North San José customers. In 2011, the Hetch Hetchy Watershed provided most of the total SFPUC water supply, with supplementation by local watersheds in Alameda and Santa Clara counties. The major water source originates from spring snowmelt flowing down the Tuolumne River to the Hetch Hetchy Reservoir where it is stored. Since this water source meets all federal and state criteria for watershed protection, disinfection treatment practices, bacteriological quality monitoring, and high operational standards, the State and USEPA have granted this water source a filtration exemption.

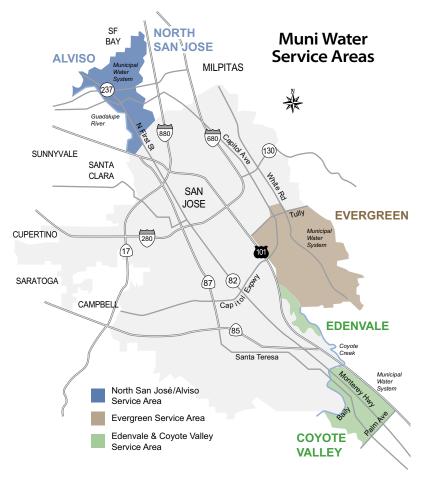
The Alameda Watershed spans more than 35,000 acres in Alameda and Santa Clara counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio reservoirs. Prior to distribution, the water from these reservoirs is treated at the Sunol Valley Water Treatment Plant (SVWTP). Fluoridation, chloramination, and corrosion control treatment are provided for the combined Hetch Hetchy and SVWTP water at the Sunol Chloramination and Fluoridation facilities.

The SFPUC actively and aggressively protects the natural water resources entrusted to its care. An annual report on the Hetch Hetchy Watershed reflects the evaluation of its sanitary conditions, water quality, and potential contamination sources. The report also presents performance results of watershed management activities implemented by the SFPUC and partner agencies to reduce or eliminate potential contamination sources. The SFPUC also conducts sanitary surveys of the local watersheds every five years. These surveys identified wildlife and human activity as potential contamination sources. The reports are available for review through the CDPH San Francisco District office.

In the summer of 2011, the SFPUC began using ultraviolet (UV) light as an additional disinfection step for the Hetch Hetchy water supply. The new Tesla Treatment Facility uses state-of-the-art UV treatment equipment to provide advanced disinfection for the Hetch Hetchy supply in the Regional Water System which serves 2.5 million customers. The facility was built to comply with the USEPA regulation that requires an additional disinfectant by April 2012 to protect the water supply from the Cryptosporidium parasite. The facility can treat up to 315 million gallons of water per day – making it the largest UV drinking water treatment plant in California and the third largest in the U.S.

Local groundwater from deep water wells is available for supplemental or emergency supply. However, the North San José wells were not used in 2011.

Muni conducted a one-time source water assessment of the wells in January of 2003.*



Evergreen Service Area

Muni Water purchases treated surface water from the Santa Clara Valley Water District (SCVWD) and delivers it to our Evergreen customers. SCVWD surface water is mainly imported from the South Bay Aqueduct, Lake Del Valle, and San Luis Reservoir, which all draw water from the Sacramento-San Joaquin Delta watershed. SCVWD local surface water sources include Anderson and Calero reservoirs. Water from imported and local sources is pumped to and treated at the Santa Teresa Water Treatment Plant in San José.

Since 2006, the SCVWD has used ozone as the primary disinfectant. Ozone disinfection is highly effective at inactivating microbial contaminants and creates fewer disinfection by-products than chlorine. Ozone also effectively removes negative tastes and odors often caused by seasonal algal blooms in the Delta source waters.

SCVWD source waters are vulnerable to potential contamination from a variety of land use practices, such as agricultural and urban runoff, recreational activities, livestock grazing, and residential and industrial development. Imported sources are additionally vulnerable to wastewater treatment plant discharges, seawater intrusion, and wildfires in watershed areas. Local sources are additionally vulnerable

to contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in SCVWD treated water. The water treatment plants provide multiple barriers for physical removal and disinfection of contaminants. Additional information on water treatment can be found at www.valleywater.org.

Local groundwater from deep water wells is available for emergency supply. The Evergreen wells were not used in 2011. Muni Water conducted a one-time source water assessment for the Evergreen wells in January 2003.*

Edenvale Service Area

Groundwater from deep water wells provides 100 percent of the supply for this service area. Muni Water conducted a one-time source water assessment for the Edenvale wells in January 2003.* Although the source is considered potentially vulnerable to chemical and petroleum processing activities, no contaminants associated with these activities have been detected.

■ Coyote Valley Service Area

Groundwater from deep water wells provides 100 percent of the supply for this service area. An assessment of these wells was conducted in June 2004,* and potable use of the groundwater began in 2005. Although the source is considered potentially vulnerable to agricultural drainage, unauthorized dumping, storage tank leaks, and sewer collection systems, no contaminants associated with these activities have been detected. Precautions taken during construction, in combination with the local hydrology, have protected the existing well locations from contamination.

*For information about the type of contaminants tested or to get a copy of the groundwater well assessment reports for your service area, please contact a Water Quality Engineer at 408-277-3671.

Water Quality

Coliforms, reported as "Total Coliform," are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Standards for compliance vary depending on the size of the distribution system. In larger systems (including Evergreen, Edenvale, and Coyote Valley), 95 percent of all samples taken each month must be free of coliforms. In smaller systems (including North San José and Alviso), no more than one sample per month may test positive for the presence of coliforms.



Disinfection of surface water is necessary to destroy disease-causing organisms for the protection of public health. In Evergreen, North San José, and Alviso, water is disinfected using chloramine. Except for a slight chlorinous taste or odor, chloramine is not harmful to the general public. However, it must be removed for kidney dialysis machines and aquariums. If you are receiving kidney dialysis treatment, please contact your doctor or dialysis technician. For pet fish, contact your local fish store for more information about special water treatment.

Fluoride is added to the naturally occurring level in Evergreen, North San José, and Alviso to help prevent dental cavities in consumers. The Evergreen community approved fluoridation with an advisory vote in the early 1960s. The SFPUC System-Wide Fluoridation Project (affecting North San José and Alviso) became operational in November 2005.

The fluoride levels in the treated water are maintained within the range required by state regulations. At present, additional fluoride is not added in Edenvale or Coyote Valley service areas. Consult your doctor or dentist if you are considering additional fluoride supplements or treatments.

Hardness consists mainly of calcium and magnesium salts. Although it does not pose a health risk, it may be considered undesirable for other reasons. Some benefits to reducing hardness by using water softeners are reductions in soap usage, longer life for water heaters, and less incrustation of pipes. Some disadvantages are an increase in sodium intake (depending on type of softener used), proper maintenance/servicing requirements, and potential adverse affects on plants and landscaping.

Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the water treatment process. The turbidity standard for unfiltered supplies (e.g., Hetch Hetchy) is 5 NTU. The turbidity for filtered water supplies (e.g., SCVWD treated water) must be less than 0.3 NTU 95 percent of the time, and at no time higher than 1 NTU.

Cryptosporidium is a parasitic microbe found in most surface water. The SFPUC regularly tests for this water-borne pathogen, and found it at very low levels in source water and treated water in 2011. However, current test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. Ingestion of Cryptosporidium may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Lead, if present at elevated levels, can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Muni Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

2011 Water Quality Data

Water at various locations in the distribution system is tested by certified City staff and a private, state-certified laboratory using the latest testing procedures and equipment. During 2011, numerous tests were conducted on samples taken from the distribution system. In addition to these tests, the SCVWD and SFPUC perform their own water quality analyses of the source and treated water.

Test results from the distribution system and source water analyses are shown in the table at right. Some of the data, though representative, are more than one year old. CDPH allows us to monitor for some contaminants less than once per year since the concentrations of these contaminants do not change frequently.

Lab analysis was also performed for many constituents other than those listed in the tables; only those chemicals detected in the tap water are shown. For a complete list of all the chemicals analyzed or any questions about this report, please contact a Water Quality Engineer at 408-277-3671.

Primary Drinking Water Standards — Public Health-Related Standards

Parameter	Unit	Unit MCL PHG Evergreen* Edenvale Coyote Valley (MRDL) [AL] (MCLG) [MRDLG] (SCWWD Treated Water) (Groundwater) (Groundwater)		•	North San Jose/Alviso (SFPUC Treated Water)		Typical Source					
Inorganic Chemicals				Average	Range	Average	Range	Average	Range	Average	Range	
Aluminum	ppm	1	0.6	ND	ND - 0.079	ND	ND	NDb	ND	ND	ND - 0.053	1
Barium	ppm	1	2	ND	ND	0.1	0.1 - 0.1	NDb	ND	ND	ND	1
Fluoride	ppm	2	1	0.8	0.6 - 1.2	0.2	0.2 - 0.2	0.13 ^b	0.13 - 0.13	1.0	0.6 - 1.3	1, 2
Nitrate (as NO3)	ppm	45	45	ND	ND - 3	10	8 - 12	2	2 - 2	ND	ND	1, 3
Organic Chemicals												
Total Trihalomethanes ^a	ppb	80	NA	50.7	20 - 83	NA	NA	NA	NA	60.1	47 - 73	4
Total Haloacetic Acids ^a	ppb	60	NA	11.6	ND - 35	NA	NA	NA	NA	40.8	34 - 44	4
Total Organic Carbon	ppm	π	NA	2.3	1.47 - 3.41	NA	NA	NA	NA	2.7	2.6 - 2.9	15
Disinfection												
Chlorine Residuala	ppm	(4)	[4]	1.5	0.02 - 3.2	NA	NA - 2.5**	NA	NA	2.4	0.06 - 3.9	5
Microbiological												
Giardia lamblia	cyst/L	π	(0)	Max = 0.2	ND - 0.2	NA	NA	NA	NA	Max = 0.07	ND - 0.07	6
				Highest %	Range	Highest %	Range	Highest %	Range	Highest #	Range	
Total Coliform ^a	% pos per month	5	(0)	0.97	0 - 0.97	0.97	0 - 0.97	0.97	0 - 0.97	NA	NA	6
	# pos per month	1	(0)	NA	NA	NA	NA	NA	NA	0	0	6
Clarity												
Turbidity (unfiltered sources)	NTU	5	NA	NA		NA	NA	NA	NA	Highest Level = 2.1		7
Turbidity (filtered sources)	NTU	1	NA	Highest Level = 0.26d		NA	NA	NA	NA	Highest Le	vel = 0.36d	7
Lead and Copper						90th	Percentile (# S	amples Exceedir	ng AL)			
Lead ^c	ppb	[15]	0.2	ND (0	of 31)	ND (0 of 31)		ND (0 of 31)		ND (1 of 30)		8
Copper ^c	ppb	[1300]	300	160 (0 of 31)		160 (0 of 31)		160 (0 of 31)		91 (0 of 30)		8

Secondary Drinking Water Standards — Aesthetic Standards

Parameter Source	Unit	MCL	Average	Range	Average	Range	Average	Range	Average	Range	Typical
Chloride	ppm	500	46	16 - 71	46	45 - 47	47 ^b	45 - 48	11	3 - 20	9, 10
Color	CU	15	ND	ND	ND	ND	ND	ND	ND	ND - 9	11
Odor	TON	3	1	1-1	ND	ND	1 ^b	ND - 1	ND	ND	11
Specific Conductance	μS/cm	1600	403	185 - 481	680	670 - 690	565b	560 - 570	181	39 - 289	10, 14
Sulfate	ppm	500	45.8	26.8 - 50.1	47	46 - 47	35 ^b	34 - 36	18	1.3 - 36	9, 12
Total Dissolved Solids	ppm	1000	227	110 - 288	395	390 - 400	330b	330 - 330	132	83 - 194	9
Turbidity	NTU	5	0.07	0.06 - 0.15	0.13	0.12 - 0.13	0.58 ^b	0.35 - 0.81	0.16	0.06 - 0.35	7

Other Water Quality Parameters

Parameter	Unit	MCL	Average	Range	Average	Range	Average	Range	Average	Range
Boron	ppb	NS	100	ND - 117	NA	NA	NA	NA	NA	NA
Calcium	ppm	NS	21	10 - 31	44	41 - 47	44b	43 - 44	13	3 - 24
Hardness (as CaCO3)e	ppm	NS	96	38 - 128	295	290 - 300	245b	240 - 250	57	10 - 98
Magnesium	ppm	NS	11	4 - 14	46	42 - 49	34 ^b	32 - 35	4.9	ND - 8.2
рН	-	NS	7.7	7.5 - 7.8	7.9	7.9 - 7.9	7.9 ^b	7.9 - 7.9	8.6	6.7 - 9.7
Potassium	ppm	NS	2.3	1.4 - 3.1	NA	NA	NA	NA	NA	NA
Silica	ppm	NS	11	9 - 13	NA	NA	NA	NA	NA	NA
Sodium	ppm	NS	40	19 - 56	29	28 - 29	20 ^b	19 - 21	13.5	3 - 20

^{*} Some SFPUC water was delivered to the SCVWD's distribution system from 1/1/11 - 1/4/11 and 3/8/11 - 5/1/11, and may have been part of the supply received by Evergreen customers during that time. Refer to the North San Jose/Alviso (SFPUC) data column in this table for details on the quality of that water supply.

NOTES:

- a Distribution system data in 2011b Well data in 2010
- c Distribution system data in 2009
- $oldsymbol{d}$ Filtered water turbidity required to be < 0.3 NTU in 95% of samples. All filtered water sources met this standard.
- $\pmb{e} \quad \text{To convert hardness from ppm to grains per gallon, divide by 17.1.}$
- TYPICAL SOURCES IN DRINKING WATER:
- 1 Erosion of natural deposits
- 2 Water additive that promotes strong teeth
- 3 Runoff/leaching from fertilizers
- 4 By-product of drinking water disinfection
- 5 Added for disinfection
- 6 Naturally present in the environment
- 7 Soil runoff
- 9 Runoff/leaching of natural deposits
- 10 Seawater influence
- 11 Naturally-occurring organic material
- 12 Industrial waste
- 13 Industrial discharges
- 14 Substances forming ions in water
- 15 Various natural and manmade sources
- 16 Naturally occurring
- 8 Internal corrosion of household plumbing systems 17 Human/animal fecal waste

See back panel for definitions and abbreviations used in this table.

^{**} Temporary chlorination was performed during April 2011 and October 2011 for maintenance purposes. No chlorine was present in the service area during the remainder of the year.

IT'S EASY TO SAVE WATER

Tips for residents and businesses

- Fix leaks promptly. Some faucet and toilet leaks are simple enough to fix yourself. A free guide for fixing simple leaks is available at the Muni Water office or by calling (408) 363-4708.
- Sign up for a Free Water-Wise House Call. A trained technician will help you find leaks, install free water-saving devices, and provide advice on ways to save water in your home and garden. Call 1-800-548-1882.
- You may qualify for a rebate if you upgrade to more water-efficient fixtures or if you replace your lawn. For more information about the following programs, call the Santa Clara Valley Water District at (408) 265-2607, ext. 2554.

For Homes: High Efficiency Toilet Rebate High Efficiency Clothes Washer Rebate Landscape Rebates

For Businesses, Condominiums, and **Apartment Complexes:** High Efficiency Toilet or Urinal Installation Program Commercial Clothes Washer Rebate Landscape Rebates

For more water conservation tips, visit www.sanjoseca.gov/esd/water-conservation

IN THE EVENT OF AN EARTHQUAKE, WILL YOU HAVE ENOUGH?

Keep a 3-day water supply just in case

- Each family member (including pets!) needs 1 gallon per day
- Store **tap water** in food-grade plastic containers; replace every 6 months
- Store **bottled water** in the original sealed containers; replace every 6 months



- **Boil it** for 3 minutes, *or* **disinfect** it by adding regular household bleach
- To disinfect: Add 8 drops of bleach per gallon of water. Shake or stir, then let it stand for 30 minutes

Information courtesy of San Francisco Public Utilities Commission. For more information, visit www.sfwater.org/BePrepared



About Us

THE SAN JOSE MUNICIPAL WATER SYSTEM is a City-owned water utility that has served customers since 1961. We are committed to delivering a reliable water supply that meets or exceeds all drinking water health standards.

Our office is open from 8:00 a.m. to 5:00 p.m., Monday through Friday (closed holidays). For more information, visit our website at www.sjmuniwater.com or call 408-535-3500 (translation services are available).

In accordance with the Americans with Disabilities Act, City of San José Environmental Services Department materials can be made available upon request in alternative formats, such as Braille, large print, audiotape or computer disk. Requests may be made by calling 408-277-3671 (voice), 1-800-735-2929 (California Relay Service), or 408-294-9337 (TTY).

The City of San José is committed to open and honest government and strives to consistently meet the community's expectations by providing excellent service, in a positive and timely manner, and in the full view of the public.



Definitions

AL (Regulatory Action Level)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level)

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technically feasible.

Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal)

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

MRDL (Maximum Residual Disinfectant Level)

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal)

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NL (Notification Level)

Health-based advisory levels established by the CDPH for chemicals in drinking water that lack maximum contaminant levels.

PDWS (Primary Drinking Water Standard)

MCLs and MRDLs for contaminants that affect health along with their monitoring, reporting, and water treatment requirements.

PHG (Public Health Goal)

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California **Environmental Protection Agency.**

Source Water

drinking water standards.

Treated Water

Water that has been treated to meet USEPA and CDPH drinking water standards.

Treatment Technique

A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations:

less than AL **Action Level** Color Unit NA Not Applicable Not Detected No Standard

Nephelometric Turbidity Units

pCi/L pico Curies per liter parts-per-billion (equals 1 microgram ppb

per liter (µg/L))

parts-per-million (equals 1 milligram

per liter (mg/L))

Threshold Odor Number TON Treatment Technique μS/cm microSiemens per centimeter